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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,051	06/24/2003	Stephen B. Segall	2115-002431	1890

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EXAMINER

STAFIRA, MICHAEL PATRICK

ART UNIT PAPER NUMBER

2877

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/603,051

Applicant(s)

SEGALL ET AL.

Examiner

Michael P. Stafira

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-21, 23-29, 32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-21, 27-29, 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 23-25 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

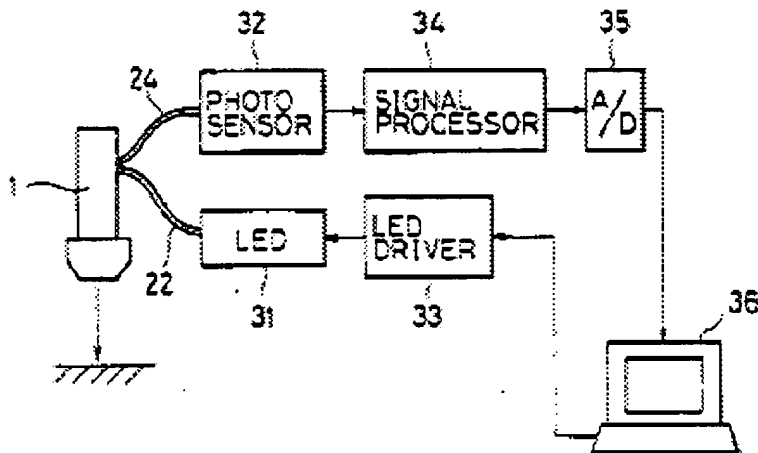
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

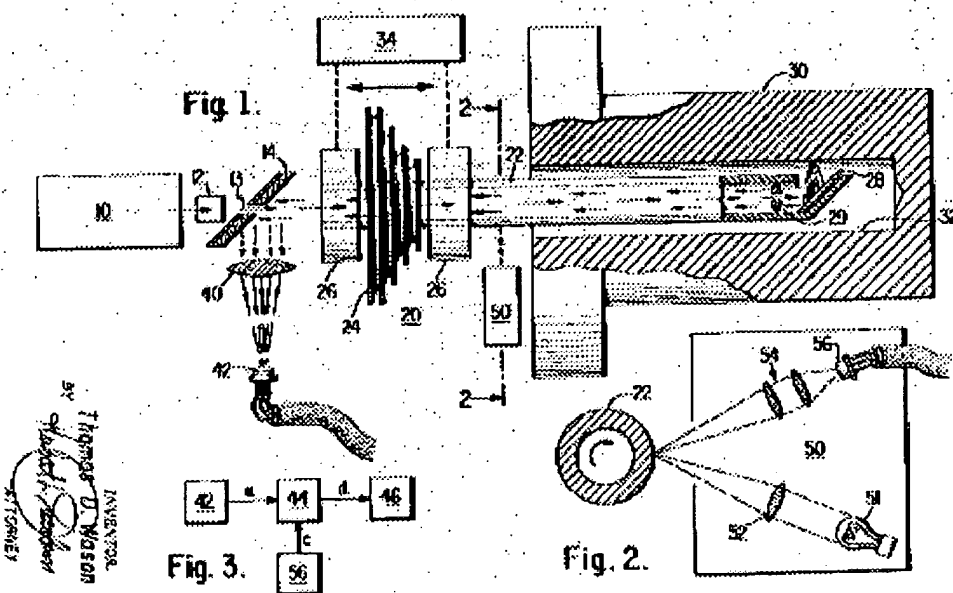
2. Claims 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki ('496) in view of Wason ('186).

#### **Claim 23**

Yamazaki ('496) discloses a method for directing a laser beam perpendicularly to the machined surface (See Fig. 3); detecting a scattered laser beam light from the machined surface (Col. 6-7, lines 63-17); determining a signature of the detected scattered laser beam light (Col. 6, lines 45-60); and determining a condition of the machined surface from the signature (Col. 6, lines 45-60).

**FIG. 3**

Yamazaki ('496) substantially teaches the claimed invention except that it does not show a machined surface is a cylinder bore. Wason ('186) shows that it is known to provide a cylinder bore (Fig. 1, Ref. 30) for an inspecting the surface condition apparatus. It would have been obvious to combine the device of Yamazaki ('496) with the cylinder bore of Wason ('186) for the purpose of providing inspection of different types of machined surfaces, therefore increasing the usability of the apparatus in different environments.

**Claim 24**

Yamazaki ('496) further discloses determining a signature includes determining a characteristic peak of the detected scattered laser beam light (Col. 6-7, lines 63-17).

**Claim 25**

Yamazaki ('496) further discloses determining a condition includes determining a type of machining mark (Figs 4a-4c).

***Response to Arguments***

3. Applicant's arguments with respect to claims 23-25 have been considered but are moot in view of the new ground(s) of rejection.

*Allowable Subject Matter*

4. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 2-21, 27-29, 32, 33 are allowed over the prior art of record.

6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, the prior art fails to disclose or make obvious an inspection probe for inspecting a surface finish of a machined surface having a computer system including software that compares the detected scattered light to a scattered light signature from a first-type finishing mark and to a scattered light signature from a second-type finishing mark and determines a condition of the surface finish, wherein the machined surface is a cylinder bore for an engine block, and in combination with the other recited limitations of claim 4. Claims 2, 3, 5-21 are allowed by the virtue of dependency on the allowed claim 4.

Regarding claim 27, the prior art fails to disclose or make obvious a reconfigurable inspection apparatus for inspecting the surface finish of a plurality of machined surfaces in a part having a reconfigurable multi-spindle apparatus having a plurality of spindles; a plurality of inspection probes rotatably and movably supported on corresponding spindles and a computer system including software that compares the detected scattered light to a scattered light signature from a first-type finishing mark and to a scattered light signature from a second-type finishing mark and determines a condition of the surface finish, and in combination with the other recited limitations of claim 27. Claims 28, 29 are allowed by the virtue of dependency on the allowed claim 27.

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Regarding claim 32, the prior art fails to disclose or make obvious an inspection probe for inspecting the surface finished of a manufactured surface having a computer system including software that compares the detected scattered light to a scattered light signature from a first-type finishing mark and to a scattered light signature from a second-type finishing mark and determines a condition of the surface finish, wherein the first and second finishing marks correspond to finishing marks before and after a removal of material, and in combination with the other recited limitations of claim 32.

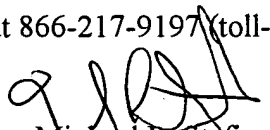
Regarding claim 33, the prior art fails to disclose or make obvious an inspection probe for inspecting the surface finished of a manufactured surface having a computer system including software that compares the detected scattered light to a scattered light signature from a first-type finishing mark and to a scattered light signature from a second-type finishing mark and determines a condition of the surface finish, wherein the first and second finishing marks correspond to finishing marks before and after an addition of material, and in combination with the other recited limitations of claim 33.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael P. Stafira  
Primary Examiner  
Art Unit 2877

July 19, 2005